

KNOWLEDGE PROBE 4: CONTEMPORARY WIRELESS TECHNOLOGY: CELL PHONES, WIRELESS LOCAL AREA NETWORKS, AND SHORT-RANGE RADIO

Wireless Local Area Networks

Learning Objectives

1. Describe how wireless LANs work.
 2. Identify terms associated with associated with wireless communication.
 3. Describe the differences between the different 802.11 standards.
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1. The main control computer that manages a LAN is called a
 - a. Laptop
 - b. PC
 - c. PDA
 - d. Server
 2. To extend a wired LAN with wireless, you add a(n)
 - a. Access point
 - b. Network interface card
 - c. Radio beacon
 - d. Transceiver
 3. A public access point is referred to as a
 - a. Broadband wireless MAN
 - b. Hot spot
 - c. Open WLAN
 - d. Public LAN
 4. How does a public access point communicate with an ISP?
 - a. 1 gigabit Ethernet line
 - b. Fiber optic cable
 - c. Standard telephone line
 - d. T1 line
 5. In a home wireless network, what is the name of the device that connects the cable TV or DSL line to the wireless transceiver?
 - a. Modem
 - b. Network interface card
 - c. Router or gateway
 - d. Transceiver



6. What organization sets the standards for WLANs?
 - a. Institute of Electrical and Electronic Engineers
 - b. International Telecommunications Union
 - c. Telecommunications Industry Association
 - d. Wi-Fi Alliance

7. The primary wireless Ethernet standard with a maximum rate of 11 Mbps is designated
 - a. 802.11a
 - b. 802.11b
 - c. 802.11g
 - d. 802.11n

8. Which of the following does NOT operate in the 2.4 GHz band?
 - a. 802.11a
 - b. 802.11b
 - c. 802.11g
 - d. 802.11n

9. The maximum data rate of the 802.11a/g WLANs is
 - a. 5.5 Mbps
 - b. 11 Mbps
 - c. 54 Mbps
 - d. 100 Mbps

10. What causes the data rate of a WLAN to be reduced?
 - a. Extended range
 - b. High noise
 - c. Interference from other LANs
 - d. All of the above

11. What is the maximum typical range of the 802.11b/g WLANs?
 - a. 100 feet
 - b. 300 feet
 - c. 300 meters
 - d. 1-2 miles

12. What WLAN standard uses the 5.8 GHz band?
 - a. 802.11a
 - b. 802.11b
 - c. 802.11g
 - d. 802.11n



13. What is the modulation/multiplexing scheme used in 802.11a/g WLANs?
 - a. DSSS
 - b. FHSS
 - c. FSK/FDD
 - d. OFDM

14. What is the maximum data rate of the forthcoming 802.11n WLAN?
 - a. 54 Mbps
 - b. 75 Mbps
 - c. 108 Mbps
 - d. 250 Mbps

15. The primary value of the Wi-Fi Alliance testing and certification program is
 - a. Full interoperability between equipment of different vendors
 - b. Maximum speed and range are always obtained
 - c. To ensure all patent holders of the technology get paid
 - d. Vendor compliance to IEEE standards

16. WLANs can be hacked into.
 - a. True
 - b. False

17. Which of the following encryption methods are use to protect WLAN data?
 - a. WEP
 - b. WPA
 - c. 802.11i
 - d. Any of the above